Army Microbiology:
A Step Beyond the Usual Career Choices

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Frequently Asked Questions

- What are the requirements to join?
- What will I do?
- How much will I get paid?
- What does an Army microbiologist’s career look like?
- Where will I be assigned?
- How long do I ‘have’ to serve when I
- Do I have to be on Active Duty?
- Will I be deployed?
- How do I join?

Strategy - Vision

Army Medicine Vision:

America's Premier Medical Team Saving Lives and Fostering Healthy and Resilient People

Army Medicine...Army Strong!

Medical Service Corps Vision:

A Cohesive Team of MSC Soldiers, Integral to the AMEDD Mission, Relevant to the Transforming Army, Excelling in Global Operations.

Strategy - Mission

Army Medicine Mission:

- Promote, Sustain and Enhance Soldier Health
- Train, Develop and Equip a Medical Force that Supports Full Spectrum Operations
- Deliver Leading Edge Health Services to Our Warriors and Military Family to Optimize Outcomes

Medical Service Corps Mission:

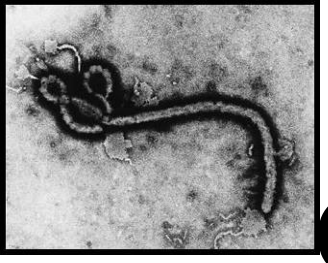
To provide, develop and sustain highly skilled and dedicated Medical Service Corps Soldiers who perform the clinical, scientific, administrative, and leadership functions essential to the efficient and effective accomplishment of the Army's health services missions

To qualify for an appointment as a Microbiologist in the Army Medical Service Corps, you must:

- Have a minimum of a master's degree in the following areas to fulfill clinical duties
  - Microbiology
  - Immunology
  - Parasitology
  - Virology
  - Molecular Biology with an emphasis in Medical Microbiology
- Have a doctoral degree in order to work in research and development (same disciplines as above)

Army Microbiology Research Accomplishments

- Vaccines:
  - Malaria (3 in phase 2 or 3 clinical trials)
  - Dengue (1 in phase 2b clinical trial in endemic country)
  - *Shigella* (2 different platforms; 1 in phase 2 clinical trials, 2 more in phase 1)
  - *Neisseria meningitidis* serogroup B (phase 1 clinical trial)
  - HIV phase 3 clinical trial in Thailand
  - *Yersinia pestis* F1-V vaccine in phase 2 clinical trials
- Drugs:
  - IV Artesunate (FDA approval 2008)
  - *Leishmania* topical treatment (phase 3 clinical trial underway)



Army Microbiology Clinical Accomplishments

- *Acinetobacter baumannii* identification and detection-led to new infection control measures
- Highly Pathogenic Avian Influenza global surveillance through the Laboratory Response Network
- Recognition by the WHO for the completion of a 30 year global molecular epidemiology study of Dengue virus providing critical information for surveillance, diagnosis, and disease mechanism

Army Microbiology Research/ Clinical Accomplishments

- Cutaneous Leishmaniasis Diagnostics
  - PCR diagnostics: Completion of validation studies/submitted to FDA
  - Point-of-Care diagnostics: Phase 2 clinical trials
- Malaria Rapid Diagnostic Test – FDA clearance
- Preparation and Validation of JBAIDS assays for FDA clearance
  - *Bacillus anthracis* (Anthrax)
  - *Francisella tularensis* (Tularemia)
  - *Yersinia pestis* (Plague)

Army Microbiology Research/ Clinical Accomplishments

- USAMRIID 71As and colleagues were the lead agency of a joint effort
  - Transitioned 53 assays or components to date used to identify biological warfare agents to the advance developer JPEO-CBD (project began in 2004)
  - Many of these assays are used by deployed forces and military force protection labs worldwide, as well as CST units in the US
- Developed anthrax assay for postal BDS system
  - USAMRIID receives a license fee

Army Microbiology Research/ Clinical Accomplishments

- Clinical research
- Teaching/training in a University setting
- Published approximately 200 scientific papers (over the course of 4 years)
- Established a 1 year clinical microbiology training program to provide clinical microbiology training to all 71As
- Developed and implemented Civil Support Training Course for the identification of biological threats and have trained over 100 CST members to date in the 3 week long course and have trained 75 other Soldiers, Sailors, Airmen and Civilians in other courses

How Long Would I Serve?

- Most initial commissions are for 3 years
- You may have a longer Active Duty Service Obligation due to accepting student loan repayments or attending special schools
- Many stay because the benefits and career opportunities of being an Army Scientist are better than jobs elsewhere

Benefits of being an Army Microbiologist

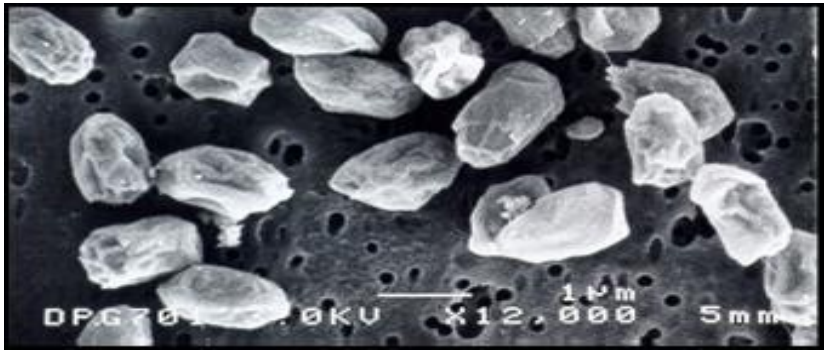
- **Postdoctoral**
  Years of Experience:
  - 0 $36,996
  - 1 $38,976
  - 2 $41,796
  - 3 $43,428
  - 4 $45,048
  - 5 $46,992
  - 6 $48,852
  - 7 or more $51,036

- **Army Scientist's Salary**
- 1LT: 1-3 years
  - $39,381- $50,820
- CPT: 4-10 years
  - $59,350 - $64,296

* Additional monthly housing allowance of $1,000 - $2,000

Additional Benefits

- Serve your Country
- World Wide assignment possibilities
- 30 days vacation - First Year!!!
- Generous allowance for housing and food costs in addition to your salary
- Healthcare at no cost for you and your family



U.S.A.
1. WRAMC,Washington D.C.
2. 1st and 9th AML detachments at Fort Detrick, MD
3. USAMRIID, Ft. Detrick, MD
4. WRAIR, Silver Spring, MD
5. Womack Army Medical Center (WAMC), Fort Bragg, NC
6. William Beaumont Army Medical Center (WBAMC), Fort Bliss, TX
7. BAMC, Ft. Sam Houston, TX
8. USADRD, Great Lakes, IL
9. Eisenhower Army Medical Center (EAMC), Fort Gordon, GA
10. MAMC, Tacoma, WA

Hawaii
11. TAMC, Honolulu, HI

Thailand
12. AFRIMS, Bangkok, Thailand

Kenya
13. USAMRU-K, Kenya

Korea
14. 121st Combat Support Hospital, Yongsan, Korea

Iraq
15. Deployed Combat Support Hospital, Iraq

Landstuhl, Germany
16. Landstuhl Regional Medical Center in Landstuhl, Germany

England
17. Porton Down in Wiltshire, England

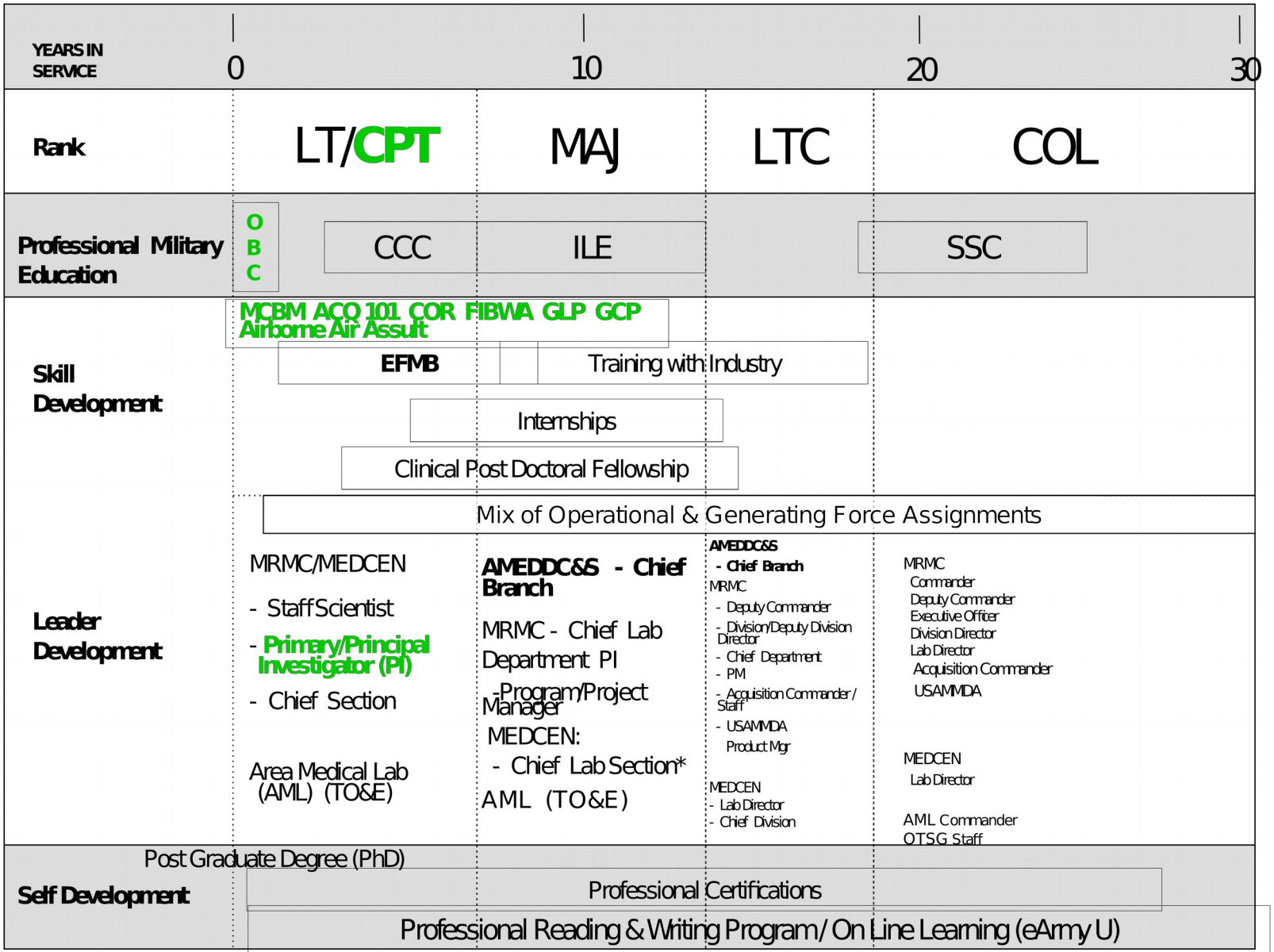
Australia
18. Melbourne, Austrailia

Reserve Options

- Already have a job, but still want to serve?
- Full time active duty is not the only option
- Talk to an AMEDD recruiter about part time duty in the Army Reserve
- Two main options in the Army Reserve
  - Belong to a reserve unit such as a Combat Support Hospital and train on a regular schedule (TPU)
  - Belong to an active duty headquarters and train on a flexible schedule (DIMA)

Interested in an Army Microbiology Career?

Example of Career Progression and Assignments



Junior Officer Job Descriptions

- The next few slides highlight some of the positions that Army Microbiologists have held as junior officers

CPT at USAMRIID:
1st year of Active Duty

- Plans, directs, and implements a multi-facetted research program designed to identify pathogenic mechanisms within category A select agent bacteria and exploit them for the development of novel therapeutic options

- Major technologies employed include high-throughput genomics, transcriptomics, metabolomics and proteomics techniques; cutting-edge molecular biology to include deletion/depletion strain construction and transcriptional reporter strain development for multiple bacterial species; in silico metabolic network construction and systems biology approaches; and in vitro phenotype correlation with host-specific virulence to include analysis of surrogate host systems such as invertebrate and amoeba culture systems

121 Combat Support Hospital Seoul, Korea

- Serves as the Chief, Microbiology, Shipping and Receiving and BSL-3 Laboratory
- Responsible for monitoring, surveillance, and confirmatory identification of endemic diseases using clinical microbiological analyses for 18th MEDCOM
- Responsible for establishing one of seven clinical BSL-3 laboratories in the AMEDD inventory and the only Lab Response Network (LRN) reference lab on the Korean Peninsula

- Responsible for maintaining $500,000 in equipment, property and contracts. Ensures that >50,000 analytical tests are performed according to regulatory agency standards
- Directly leads 10 personnel in support of the dual Clinical Microbiology and BSL-3 mission. Serves as the department Infection Control Officer, EOC representative, and ALTA/CHCS Steering Committee member

1LT on Active Duty for <6 months

- Chief of Immunology in the US Army's second largest Microbiology Section with the largest clinical virology service in the AMEDD
- Serves Brooke Army Medical Center (BAMC) as well as other CONUS and OCONUS military treatment facilities
- Leads staff of nine military and civilian technologists and technicians who perform 100,000+ tests annually

- Responsible for all aspects of the laboratory to include clinical performance, quality assurance/control, implementation of new tests and procedures, workload prioritization, military readiness and technical training of residents, civilians, and 68K MLT students
- Executes an annual budget of $1.07 million

CPT on Active Duty 3 years

- Principal Investigator responsible for managing the continued development and transition of a research-grade malaria real-time PCR assay package for human diagnostics onto the JBAIDS platform in preparation for 510(k) FDA submission
- Provide nucleic acid sequencing support for the Molecular Diagnostics Department
- Conduct research aimed at finding novel targets for the development of real-time PCR assays to speciate pathogenic from non-pathogenic forms of *Leishmania*

Serve as Contract Officer Representative on three infectious disease human diagnostic Phase 2 Small Business Innovation Research (SBIR) Program contracts. Serve as the Division of Entomology's Environmental Compliance Officer and Chemical Hygiene Officer (ECCHO). Serve as the Division of Entomology's Assistant Controlled Substance Officer

Army Microbiologist Deployment Opportunities

- 71A clinical microbiology additions to the Combat Support Hospitals in support of the Warfighter

- 71As (and other allied science officers) on the RDECOM-FAST team help to bring scientific solutions to the Warfighter as fast as possible

Army Microbiologists Deployed in OIF/OEF

- Provide infectious disease diagnostic services to include bacterial identification and susceptibility testing, anaerobic bacteriology, mycobacteriology, mycology and parasitology for a Level III Combat Support Hospital directly supporting a 4100 person Theater Internment Facility
- Provide microbiology augmentation to local clinics supporting 50,000 coalition forces on Victory Base Complex
- Responsible for ensuring efficient resource management within the Infectious Disease laboratory to include equipment maintenance, consumable supply inventory and new item procurement
- Maintain quality assurance, quality control and safety programs in accordance with the appropriate local and federal guidelines. Conduct in-services and consultations as required

Interested in Joining or Getting More Information?

- GoArmy.com (AMEDD healthcare)
  - http://www.goarmy.com/amedd/m_service/laboratory_sciences.jsp
- 71A Microbiology External Website
  - http://medicalservicecorps.amedd.army.mil/71A/index.htm
- For additional information email:
  - 71Acareers@amedd.army.mil

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